

# **Bellatrix Card-Trak Wand and CCM Setup Application User Manual**



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## Getting Started

Card-Trak Wands and the CCM Setup Application are part of the Bellatrix Card-Trak system. The CCM Setup Application is used in conjunction with Card-Trak Wands to initialize and setup Card-Trak Card Readers. Card-Trak Wands are also used to collect sales data from Card-Trak Card Readers and deliver the sales data to the CCM Sales Application for processing.

The rest of this section describes how to get started with the installation of the CCM Setup Application.

The sections following this one describe how to use Card-Trak Wands and the CCM Setup Application.

## System Requirements

- Windows XP/7 PC.
- Bellatrix Card-Trak Wand(s).
- Bellatrix CCM Setup Installation CD-ROM (or Bellatrix Card-Trak Installation CD-ROM).

## Installation Steps

Place the Bellatrix CCM Setup Installation CD-ROM in the PC's CD-ROM drive—the SETUP.EXE file on the CD-ROM should run automatically.

Follow the on-screen prompts to install the Application.

**Note:** The CCM Setup Application may also be installed from the Bellatrix Card-Trak Installation CD-ROM (please see the *Bellatrix CCM Sales Application User Manual*).

**IMPORTANT:** The CCM Setup Application may be installed and used on the same PC that runs the Bellatrix CCM Sales Application (which processes sales data). **The CCM Setup Application may also be installed on multiple laptop PCs (to facilitate street-side Card Reader setup).**

## Contacting Technical Support

Technical support is available through Bellatrix Systems, Inc. at 1-800-451-9753 Monday through Friday from 8:00am to 5:00pm (Pacific Time).

## The Card-Trak Wand

The Card-Trak Wand is part of the Bellatrix Card-Trak system. It is used to collect sales data from Card-Trak Card Readers and deliver the sales data to the CCM Sales Application for processing. The sales data is fully encrypted and protected at all times.

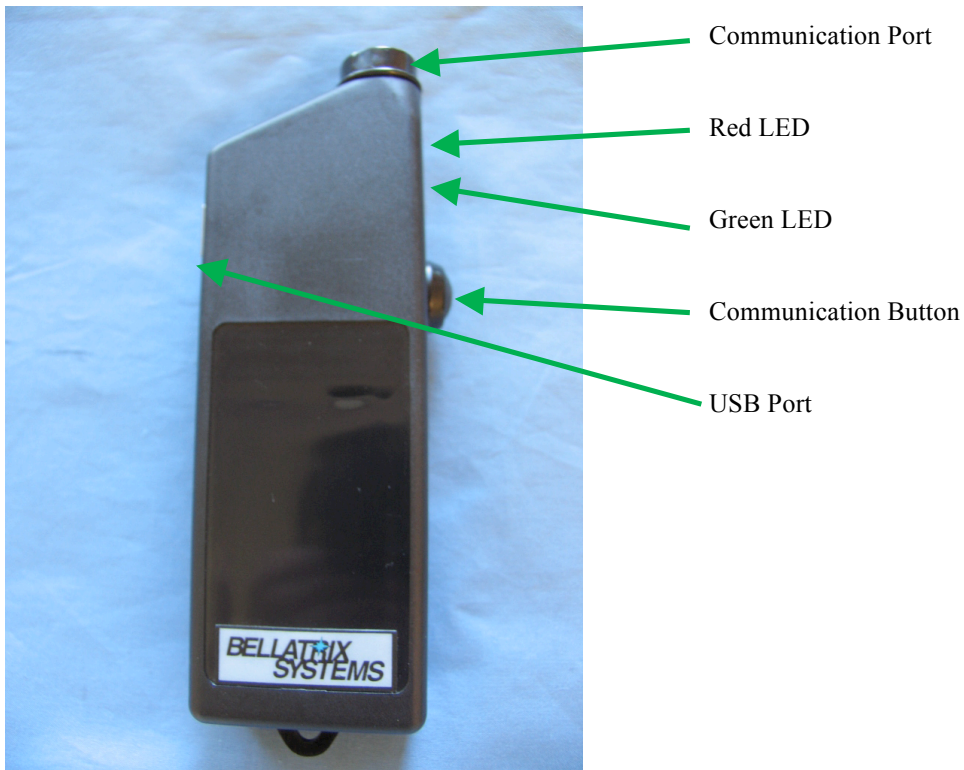
The Card-Trak Wand is also used in conjunction with the CCM Setup Application to initialize and setup Card-Trak Card Readers (see the next section for details).

### **IMPORTANT:**

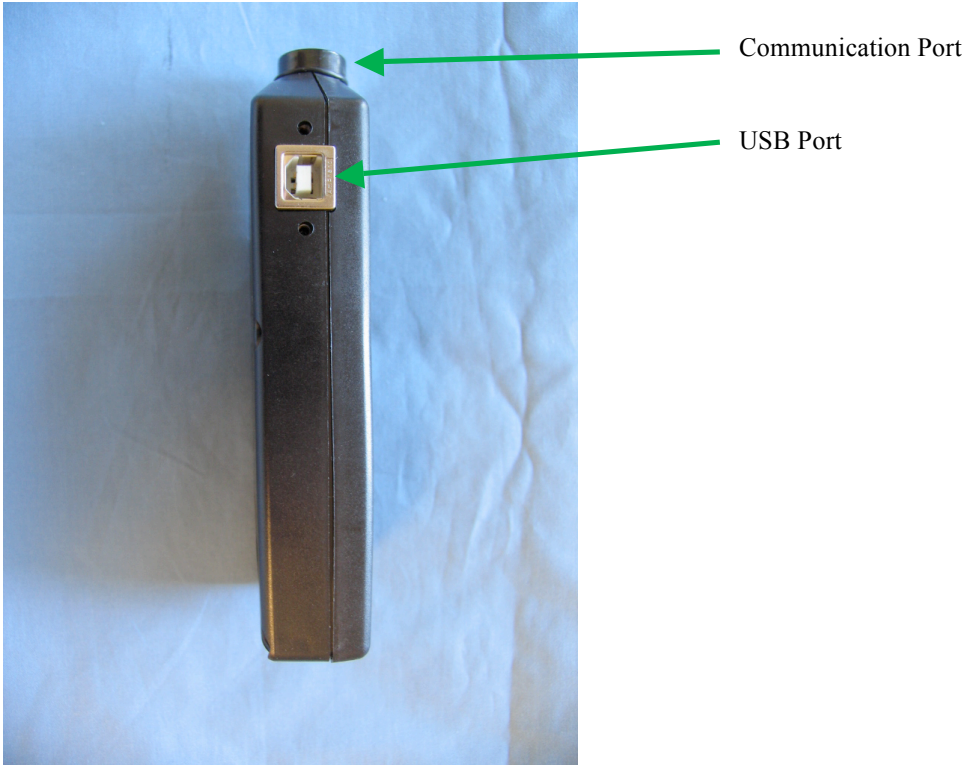
- Before use, the Wand must be initialized and setup via the CCM Sales Application (please see the *Bellatrix CCM Sales Application User Manual*).
- The Wand that was used to setup the Card Reader is the only Wand that can collect sales data from that Card Reader in the future. That is, during Card Reader setup the Wand and Card Reader are “paired” with each other.

As the images below show, the Wand is very simple. It has a Communication Port on the top for communicating with Card Readers. The left side has a USB Port so the Wand may be attached via a standard USB Cable to a PC. And the right side has a Communication Button for initiating Card Reader communication and Green and Red LEDs for indicating communication success or failure.

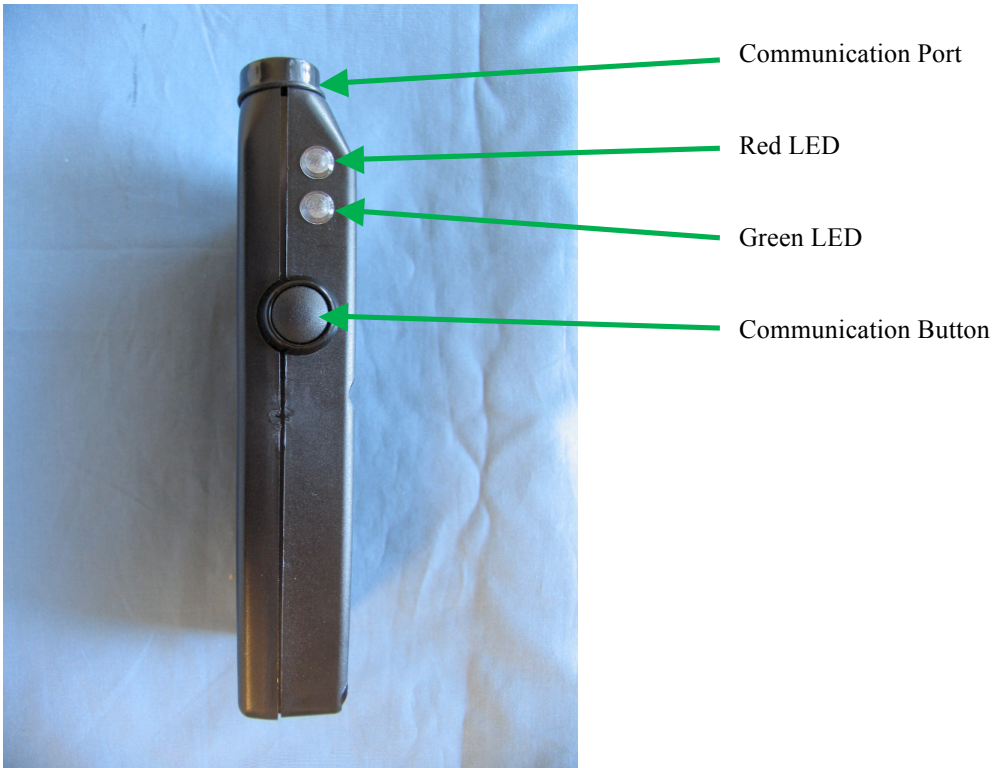
Sealed inside the Wand is a non-rechargeable battery. The battery is designed to last several years and can only be replaced by Bellatrix Systems, Inc.



**Wand Front**



**Wand Left Side**



**Wand Right Side**

Card-Trak Wand usage is described below.

### **Step 1: Setup the Wand**

First, the Wand must be initialized and setup via the CCM Sales Application (please see the *Bellatrix CCM Sales Application User Manual*).

### **Step 2: Use the Wand to Setup Card Readers**

After the Wand has been setup, it may be used in conjunction with the CCM Setup Application to initialize and setup Card-Trak Card Readers (see the next section for details).

### **Step 3: Use the Wand to collect Card Reader sales data**

Once the Card Readers have been setup via the Wand they may be put into service. The Wand is then used to periodically collect the sales data from each Card Reader (we suggest data collection at least once per week).

**IMPORTANT:** The Wand that was used to setup the Card Reader is the only Wand that can collect sales data from that Card Reader in the future. That is, during Card Reader setup the Wand and Card Reader are “paired” with each other.

Sales data collection is done as follows:

- A. Hold the Wand in front of the Card Reader with the Wand Communication Port about six inches directly in front of the window on the front of the Card Reader.
- B. Press and release the Wand Communication Button and hold the Wand steady in front of the Card Reader. The Wand will read the sales data out of the Card Reader. The Wand Green LED will flicker while the sales data is being collected.

If the sales data collection succeeded, the Wand Green LED will go on solid for about three seconds.

If the sales data collection failed, the Wand Red LED will go on solid for about three seconds. Be sure the Wand is properly aligned and try again (you may need to shade the space between the Wand and Card Reader from direct sun).

**Important Notes:**

- After a successful sales data collection, you must wait at least one minute before the next sales data collection from the same Card Reader.
  - The Wand can hold a maximum of 200 sales data collections at one time.
- C. Repeat steps A and B for each Card Reader.
  - D. At the data processing PC, attach the Wand to the PC via a standard USB Cable and use the CCM Sales Application to synchronize the Wand with the PC. Synchronization moves the sales data from the Wand to the PC (please see the *Bellatrix CCM Sales Application User Manual*).

## The CCM Setup Application

The CCM Setup Application is used in conjunction with the Card-Trak Wand to initialize and setup Card-Trak Card Readers. To setup a Card Reader, first attach the Wand to the PC via a standard USB Cable; next, place the Wand about six inches in front of the Card Reader and aim the Wand's Communication Port at the window on the front of the Card Reader; finally run the CCM Setup Application. Each initialization and setup function (see below) is sent from the CCM Setup Application, through the Wand to the Card Reader.

### **IMPORTANT:**

- The CCM Setup Application may be installed and used on the same PC that runs the Bellatrix CCM Sales Application (which processes sales data). **The CCM Setup Application may also be installed on multiple laptop PCs (to facilitate street-side Card Reader setup).**
- Before using the Wand to initialize and setup a Card Reader, the Wand must itself be initialized and setup via the CCM Sales Application (please see the *Bellatrix CCM Sales Application User Manual*).
- The Wand that was used to setup the Card Reader is the only Wand that can collect sales data from that Card Reader in the future. That is, during Card Reader setup the Wand and Card Reader are "paired" with each other.
- The Wand may be used to setup a maximum of 200 Card Readers.

The image below shows the Main screen of the CCM Setup Application. The usage of the Application is described in the sections that follow.

CCM Setup 859-0109-00

Hard-Reset Card Reader

Manage Fixed Format...

Card Reader Software Version: [ ] Get

Card Reader Date and Time: [ ] Get Set

Card Reader IDs:

Group ID: [ ]

CCM ID: [ ]

Get Set

Card Reader Accepted Cards:

Visa

MasterCard

American Express

Discover

Get Set

Card Reader Prices:

Enable Two Prices

Price 1 (in pennies): [ ]

Price 2 (in pennies): [0]

Price 1-to-Price 2 Changeover:

Day: [ ] Hour: [ ]

Price 2-to-Price 1 Changeover:

Day: [ ] Hour: [ ]

Get Set

Exit

### ***The Exit Button***

The Exit button closes the Application.

### ***The Card Reader Software Version Get Button***

The Card Reader Software Version Get button gets the software version from the Card Reader and displays the results.

### ***The Card Reader Date and Time Get Button***

The Card Reader Date and Time Get button gets the current date and time from the Card Reader and displays the results.

### ***The Card Reader Date and Time Set Button***

The Card Reader Date and Time Set button sets the date and time in the Card Reader to be the same as the current date and time in the PC.

### ***The Hard-Reset Card Reader Button***

The Hard-Reset Card Reader button forces the Card Reader to perform a hard-reset. You are asked if you are sure you want to hard-reset the Card Reader before the action is taken.

Hard-reset sets all Card Reader configuration data to factory default values (see below) and deletes all sales data stored in the Card Reader. A Card Reader's Group ID and/or CCM ID can only be set after the Card Reader has been hard-reset.

Hard-reset can also be used to re-initialize a Card Reader that will no longer communicate with the Wand.

The Card Reader configuration data factory default values are as follows:

- Group ID = 0
- CCM ID = 0
- Accepted credit cards = Visa, MasterCard, American Express and Discover
- Price = 75 cents—one-price-only mode
- Fixed-Format information deleted.
- Bad-Card information deleted.

**IMPORTANT:** After a hard-reset, you must set the Group ID and CCM ID to non-zero values (and these two IDs, taken as a pair, must be unique). Also, be sure to set the other configuration data as needed after a hard reset.

**Note: This function should be used with care.**



### ***The Card Reader IDs Get Button***

The Card Reader IDs Get button gets the Group ID and CCM ID from the Card Reader and displays the results in the on-screen fields.

### ***The Card Reader IDs Set Button***

**IMPORTANT:** Before the Card Reader IDs Set button will function, the Card Reader must be hard-reset. See “The Hard-Reset Card Reader Button”. Note that hard-resetting a Card Reader resets all settings, Group ID, CCM ID, etc. So, you may want to first record the current Card Reader settings.

After a hard-reset, the Card Reader IDs Set button sets the Card Reader’s Group ID and CCM ID settings the same as those currently displayed in the on-screen fields. Also, the Card Reader’s date and time are set the same as the PC’s date and time and the Card Reader’s sales totals are set to zero.

If any of the steps listed above fail, an appropriate error message displays.

#### **Important Notes:**

- The Card Reader must be hard-reset before the Card Reader IDs Set button will function.
- Group ID combined with CCM ID must be unique (i.e., no other Card Reader can have the same Group ID and CCM ID pair).
- Group ID must be between 1 and 65,535, inclusive.
- CCM ID must be between 1 and 65,535, inclusive.

### ***The Card Reader Accepted Cards Get Button***

The Card Reader Accepted Cards Get button gets the accepted credit cards from the Card Reader and displays the results in the on-screen fields.

### ***The Card Reader Accepted Cards Set Button***

The Card Reader Accepted Cards Set button sets the Card Reader’s accepted credit cards the same as those currently displayed in the on-screen fields.

### ***The Card Reader Prices Get Button***

The Card Reader Prices Get button gets all price information from the Card Reader and displays the results in the on-screen fields.

### ***The Card Reader Prices Set Button***

The Card Reader Prices Set button sets the Card Reader's price information the same as that currently displayed in the on-screen fields.

Card Readers that connect to ST-215 or ST-511 Coin Mechs can accept only one price. Each time the price is changed in the Coin Mech (via the Price-Set Keyswitch or the Data Link) it automatically feeds the new price to the Card Reader. For this reason the Card Reader stores just one price at a time.

Card Readers that connect to emechs (ST-710 or ST-810 Coin Mechs) can accept either one or two prices. Since an emech can accept either one or two prices and since it does not feed price changes to the Card Reader, the Card Reader must be able to coordinate its price with the price in the emech. For this reason the Card Reader stores either one or two prices at a time.

As the image above shows, you may setup a Card Reader with either one or two prices. If you attempt to load two prices into a Card Reader that cannot accept two prices, an error message displays.

If the "Enable Two Prices" checkbox is unchecked, only the Price1 field is enabled and the Card Reader will be setup with only one price.

If the "Enable Two Prices" checkbox is checked, all the fields are enabled and the Card Reader will be setup with two prices. If two prices are specified, the "Price1-toPrice2 Changover" and "Price2-toPrice1 Changover" fields must also be specified. The "Price1-toPrice2 Changover" field shows the Day and Hour when the Card Reader should switch from Price1 to Price2. Conversely, the "Price2-toPrice1 Changover" field shows the Day and Hour when the Card Reader should switch from Price2 to Price1.

For example, suppose you wish to specify a weekday price of \$1.00 and a weekend price of \$2.00. In this case, you could set the Price1 field to "100", the Price2 field to "200", the Price1-toPrice2 Changover Day to "Sat", the Price1-toPrice2 Changover Hour to "01", the Price2-toPrice1 Changover Day to "Mon" and the Price2-toPrice1 Changover Hour to "01". Once these settings are loaded into the Card Reader, it would switch from Price1 (\$1.00) to Price2 (\$2.00) on Saturday morning at 1:00 am and switch back the other way on Monday morning at 1:00 am thereby achieving the desired two-price setting.

#### **Notes:**

- Prices are given in cents and must be between 1 and 65,535, inclusive.
- Day and Hour settings must be chosen from their predefined drop-down lists.

## **The Manage Fixed Format Button**

The Manage Fixed Format button displays the Manage Fixed Format screen (see below). This screen allows you to create, edit, distribute and remove fixed-format specifications.

This section has four parts. First, the fixed-format card is described. The magnetic stripe is described second. Third, the usage of the Manage Fixed Format screen is given. Finally, a generic fixed-format layout is given (in case you wish to create your own fixed-format cards).

**The fixed-format card:** A fixed-format card is just like a credit card except the data on a fixed-format card is predetermined and, therefore, known before the card is swiped through the Card Reader. The data on a credit card is known only after the card is swiped through the Card Reader.

For example, a college may create and issue student cards with predetermined data. Since the data on the student cards is “fixed” ahead of time, these would be considered fixed-format cards.

**The magnetic stripe:** The magnetic stripe is the (usually) black stripe on the back of all credit cards and all fixed-format cards. The magnetic stripe contains the data. Creating a fixed-format specification requires that you understand the layout of the data on the magnetic stripe.

The magnetic stripe contains three rows—called Tracks—of data. Each Track has limitations on both the length and type of data that it may contain. These limitations are listed below.

Track 1 Data Limitations:

- Maximum number of characters: 78
- Accepted characters: 0-9, A-Z, space, #, \$, %, (, ), -, ., /, ?, ^

Track 2 Data Limitations:

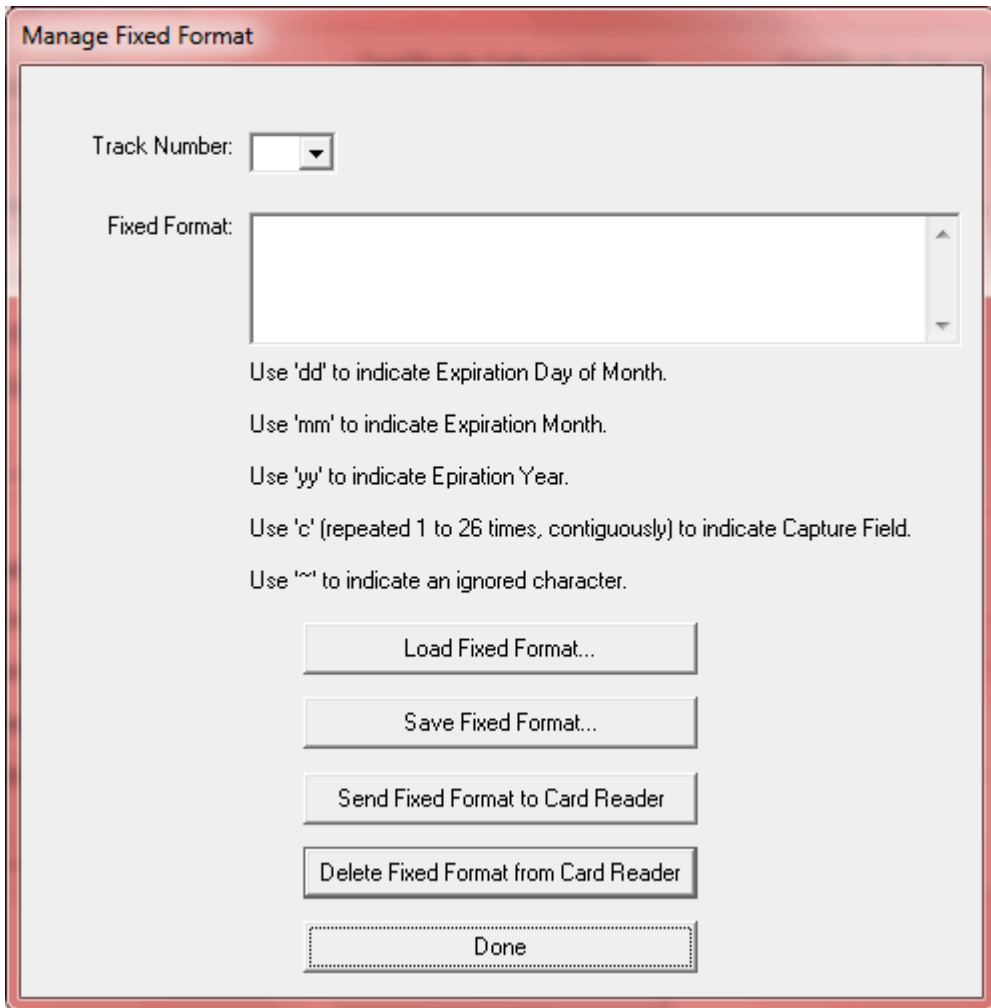
- Maximum number of characters: 39
- Accepted characters: 0-9, :, ;, =, ?

Track 3 Data Limitations:

- Maximum number of characters: 106
- Accepted characters: 0-9, :, ;, =, ?

Your fixed-format specification must be for one of the three Tracks. In order to create your fixed-format specification you must know the exact layout of the data on the chosen Track on the fixed-format card.

The usage of the Manage Fixed Format screen is described next.



### ***The Done Button***

The Done button closes this screen and returns to the Main screen.

### ***The Track Number Field***

The Track Number field specifies the magnetic stripe Track number for the fixed-format specification. The drop-down list allows you to choose 1, 2 or 3.

### ***The Fixed Format Field***

The Fixed Format field specifies the magnetic stripe data for the fixed-format specification. The data may be typed in or automatically inserted via a keyboard wedge card reader.

To use a keyboard wedge card reader, first attach the reader to your PC then be sure the cursor is in the Fixed Format field and swipe a card through the reader. The data read from the card is automatically inserted at the cursor. Note that all data from all Tracks on the card may be inserted. You will need to delete the data from all Tracks except the one Track you choose to use in the fixed-format specification.

The Fixed Format field may contain special placeholder indicators. These placeholders are listed on the Manage Fixed Format screen, just below the Fixed Format field. Except where noted below, all placeholders are optional.

**Card Expiration Day of Month Placeholder:** Insert “dd” as a placeholder for Card Expiration Day of Month. This placeholder must be accompanied by both the Card Expiration Month and Card Expiration Year placeholders.

**Card Expiration Month Placeholder:** Insert “mm” as a placeholder for Card Expiration Month. This placeholder must be accompanied by the Card Expiration Year placeholder.

**Card Expiration Year Placeholder:** Insert “yy” as a placeholder for Card Expiration Year. It is assumed that the year contains the last two digits only (e.g., 09 for the year 2009). This placeholder must be accompanied by the Card Expiration Month placeholder.

**Ignored Character Placeholder:** Insert the character “~” as a placeholder for an ignored character. Fixed-format cards may have variable data on them. At first glance, this appears to be a contradiction. After all, why would a fixed-format card have variable data? However, it is common practice to have some of the data be fixed and some of the data be variable so that each card may be uniquely identified.

For example, a college campus may want to issue fixed-format cards to their students, but have a unique Student ID field on each card. In this case, the Student ID field would be the “variable data” on the fixed-format card.

Since the content of variable data is not known by the Card Reader ahead of time, it must be effectively ignored by the Card Reader. Each character of the variable data may be ignored by inserting the Ignored Character Placeholder where the variable-data character is located (see the example, below).

**Capture Field Placeholder:** Insert the character “c”—repeated 1 to 26 times, contiguously—as a placeholder for the Capture Field. The Capture Field is exactly the same as a series of ignored characters (see above) except that “captured” characters will be automatically inserted in the output sales report.

The Capture Field provides a way for you to record some of the data from the fixed-format card and insert that data into the sales report (see the example, below). The captured data may be variable (see above) or fixed. Since the data will be displayed in the Name field of the sales report, it is limited to a maximum of 26 characters (the maximum length of the Name field).

**Placeholder Example:** Suppose that a fixed-format card has data only on Track 2 as follows:

**“;11223333311213?”**

The data layout is defined as:

- Fixed Start Sentinel “;”
- Fixed 2-digit School ID “11”
- Variable 2-digit Location ID “22”
- Variable 4-digit Student ID “3333”
- Variable 6-digit Card Expiration Date given as Day-of-Month “31”, Month “12” and Year “13”
- Fixed End Sentinel “?”

Further suppose that we wish to ignore Location ID and capture Student ID. This means that the Start Sentinel, School ID and End Sentinel must be transcribed as fixed-format fields. The Location ID must be ignored. The Student ID must be captured. And the Card Expiration Date must be specified.

Given this description, the Track Number Field should be set to “2” and the Fixed Format Field should be specified using fixed characters and placeholders as follows:

**“;11~ccccddmmy?”**

**IMPORTANT:** This example is for illustrative purposes only and was not meant to be a realistic fixed-format layout. See below for a generic fixed-format layout.

### **The Load Fixed Format Button**

The Load Fixed Format button displays an Open dialog box so you may browse for a stored fixed-format file that you wish to open. Note that fixed-format files always have the filename extension CFG.

If the fixed-format file you select is valid, its contents displays in the Track Number and Fixed Format fields. Otherwise, an error message displays.

### **The Save Fixed Format Button**

The Save Fixed Format button displays a Save As dialog box so you may store the data in the Track Number and Fixed Format fields to a fixed-format file. Note that fixed-format files always have the filename extension CFG.

### **The Send Fixed Format to Card Reader Button**

The Send Fixed Format to Card Reader button copies the data in the Track Number and Fixed Format fields to the Card Reader.

### **The Delete Fixed Format from Card Reader Button**

The Delete Fixed Format from Card Reader button removes all fixed-format data from the Card Reader.

**A Generic Fixed-Format Layout:** If you wish to create your own fixed-format layout for your own fixed-format cards, Bellatrix suggests the following generic layout.

All data on Track 2 as follows:

**“;===111111=222222=333333=444444=311213?”**

The data layout is defined as:

- Fixed 4-character **Preamble** “;===”
- Fixed 6-digit **Company ID** “111111” **Important: Since this field value must be unique to your company, you must be assigned this field value by Bellatrix.**
- Fixed 1-character **Field Separator** “=”
- Variable 6-character **Location ID** “222222” **Note:** You may set this to any value you wish.
- Fixed 1-character **Field Separator** “=”
- Variable 6-character **Promotion ID** “333333” **Note:** You may set this to any value you wish.
- Fixed 1-character **Field Separator** “=”
- Variable 6-character **Customer ID** “444444” **Note:** You may set this to any value you wish.
- Fixed 1-character **Field Separator** “=”
- Variable 6-digit **Card Expiration Date** given as Day-of-Month “31”, Month “12” and Year “13” **Note:** You may set this to any value you wish.
- Fixed **End Sentinel** “?”

Given this description, the Track Number Field should be set to “2” and the Fixed Format Field should be specified using fixed characters and placeholders as follows:

**“;===111111=cccccccccccccccccc=ddmmyy?”.**

**Important:** **Company ID** (“111111”) must be replaced with the **Company ID** assigned to your company by Bellatrix. **Location ID**, **Promotion ID** and **Customer ID** are all included in a Capture Field and will, therefore, be inserted in the output sales report. All fixed-format cards must have data on Track 2 in order to activate the Card Reader (although the fixed-format data itself may be on any Track).